

Sport Finance HMS 8X15 / SPB 11X7

**NOVEMBER EXAMINATION****PROGRAMME** : SPORT MANAGEMENT HONOURS**SUBJECT NAME** : SPORT FINANCE**SUBJECT CODE** : HMS 8X15 / SPB 11X7**DATE** : NOVEMBER 2016**DURATION** : 180 MINUTES**TOTAL MARKS** : 100 MARKS

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INSTRUCTIONS TO CANDIDATES:**MAKE SURE THAT YOU HAVE THE COMPLETE QUESTION PAPER.****ANSWER ALL THE QUESTIONS**

QUESTION 1 (22 MARKS)

REQUIRED:

Answer the following questions by choosing the correct answer. Write the **letter** you have chosen as your answer next to the question number on your answer sheet.

1.1 If a company only focuses on profits, which of the following will be ignored?

- A return
 - B cost
 - C risk
 - D share price
- (2)

1.2 If you are the owner of a cycling shop which unfortunately goes bankrupt, it would be best for you as an individual if this business were a...

- A Sole proprietorship
 - B Company
 - C Partnership
 - D Franchise
- (2)

1.3 Identify which one of the following entities is likely to encounter the highest agency cost.

- A. Small local operation
 - B. Partnership between brothers
 - C. Medium sized Government department
 - D. Large Public Listed Company
- (2)

1.4 Sport Manufacturing has an average age of inventory of 50 days, an average collection period of 37 days and an average payments period of 40 days. Determine which ONE of the following will decrease the cash conversion cycle of Sport Manufacturing.

- A. Increase the average age of inventory
 - B. Decrease the average payment period
 - C. Increase the average collections period
 - D. Decrease the average age of inventory
- (2)

1.5 Financial alternatives can only be compared to one another if they are measured at the same point in time. Which ONE of the following methods is correct?

- A All cash flows can be expressed in terms of their value today known as present value through a process of discounting.
- B All cash flows can be expressed in terms of their value today known as present value through a process of compounding.
- C All cash flows can be expressed in terms of their value at the end of the project life known as future value through a process of discounting.
- D None of the above. (2)

1.6 Progba injured himself in the last UEFA Euro Cup match. He will not be able to play soccer again as a result of the injury. His medical insurance has indicated that he will receive a monthly payment of R 25 000 indefinitely to compensate him for the loss of income. The money will be deposited into his NatWest bank account that earns interest of 7.5% p.a compounded monthly.

Calculate the value of the medical insurance today, assuming that the payments will never cease.

- A R 4000 000.00
- B R 3 333.33
- C R 333 333.33
- D R 1 636 363.63 (2)

1.7 Costs that cannot be specifically identified with a given cost object is a:

- A. Indirect cost
- B. Direct cost
- C. Non-manufacturing cost
- D. Labour cost (2)

1.8 Cost of goods sold is calculated by taking:

- A. Total manufacturing cost, adding beginning work-in-progress inventory and deducting the ending work-in-progress inventory
- B. Cost of goods manufactured, adding the beginning finished goods inventory and deducting the ending finished goods inventory
- C. Raw materials used in production, adding direct labour and manufacturing overheads
- D. Raw materials, adding purchases of raw materials and deducting the ending inventory of raw materials (2)

- 1.9 A company produces punching bags. The material used in the manufacture of the punching bag would be called direct materials, and in terms of cost behaviour, the cloth could also be described as a:
- A. Variable cost
 - B. Non-manufacturing cost
 - C. Relevant cost
 - D. Fixed cost
- (2)
- 1.10 A budget which is continually updated by periodically adding a new incremental time period and dropping the period just completed is a:
- A. Zero-based budget
 - B. Continuous budget
 - C. Master budget
 - D. Flexible budget
- (2)
- 1.11 Which of the following statements is TRUE regarding the measure of debt in a company?
- I. The debt position indicates the amount of other people's money that is being used in the attempt to generate profits
 - II. Since the claims of creditors must be satisfied prior to the distribution of earnings to owners, owners pay close attention to the degree of indebtedness and ability to repay debts
 - III. The more indebted the business, the higher the probability that the business will be unable to satisfy the claims of all its creditors opportunity cost of finance
 - IV. The more debt or financial leverage a business uses, the greater the risk and required return will be
 - V. The financial analyst is most concerned with long-term debts, since these commit the business to pay interest over the long run and eventually to repay the borrowed funds
- A. I, III, V
 - B. I, II, IV
 - C. II, III
 - D. All of the above are true
- (2)

QUESTION 2 (16 MARKS)

Solar Flare Ltd recently started to manufacture their first product called *Spark* energy drink. The drink will be available in two flavours – Midnight Sun and Good Morning Sunshine.

The marketing department has forecasted the sales and purchases numbers for the first couple of months after the launch as follows:

Solar Flare: Spark		
	Sales Budget (R)	Purchases Budget (R)
January	60 000	60 000
February	70 000	48 000
March	85 000	55 000
April	95 000	70 000

Additional information:

- All sales are on credit.
- It is expected that 60% of debtors settle within the month of sale and 40% the month thereafter.
- Purchases will be paid in the month incurred.
- Wages are R7 000 for January after which it is expected to increase to R8 000 due to annual wage negotiations in February.
- Other overheads are R2 000 per month and are paid in the month incurred.
- Provisional tax of R8 000 has to be paid in March.
- A new bottling machine will be purchased in February for R30 000.
- At the beginning of the year the company had the following balances in its books:
 - Cash: R50 000
 - Trade debtors R18 000

One of the new interns has started compiling the budget however they have become stuck. They have approached you for help.

He brings you the following of what he has done:

	<u>January</u> <u>(R)</u>	<u>February</u> <u>(R)</u>	<u>March</u> <u>(R)</u>
Cash balance at beginning of:	50 000		
Receipts			
Sales	54 000		
Available	104 000		
Payments			
Material purchases	60 000	48 000	55 000
Direct labour costs	7 000		
Overheads	2 000	2 000	2 000
Tax			
Outflow	69 000	94 600	72 900
New balance	35 000		

REQUIRED:

- 2.1 Complete the cash budget for Solar Flare for February and March (Show all calculations).

(12)

- 2.2 Costs can react to change in activity level in two ways. Name and explain these two ways. **(4)**

QUESTION 3 (17 MARKS)

Rocky's Inc. is a company that builds gyms, boxing clubs, manufactures gym and boxing equipment, as well as producing various gym and boxing apparel. The company was listed on a stock exchange a couple of years ago and is gaining investor interest.

Rocky's have 200 000 ordinary shares in issue and they have also issued 4 000 bonds with a par value of R1 000 per bond. The bonds carry a 13% coupon rate (interest rate) which is paid annually.

Currently the bonds are selling at 102 percent of the par value and the shares have a market price of R18 each.

Additional information:

- The company's tax rate is 35%.
- The return on government bonds is 5.7%.
- The market risk premium is 8%.
- The beta is 1.2.

REQUIRED:

- 3.1 Calculate the WACC. **(7)**
- 3.2 If the return on the government bond decreased to 4.5%, and the tax rate changes to 40%, what will the new WACC be? **(6)**
- 3.3 What is the cost of equity? Explain your answer. **(2)**
- 3.4 What does the capital structure refer to and how does it change over time? **(2)**

QUESTION 4 (15 MARKS)

Hercules Health-nut, a subsidiary of a well-known chain of fitness and health clubs, Olympus Health & Fitness, has been struggling to meet its budget. The financial manager is reviewing the performance of this subsidiary to find out why. He would like to get a better understanding of how it has performed over the past couple of years. The financial manager is particularly concerned with the management of the subsidiary's debt.

The following financial statements for Hercules has been provided below:

Hercules Health-nut		
Statement of Financial Position as at the 28th February		
	2015	2016
<i>Non-Current assets</i>	3 820 000	4 180 000
	2 780 000	3 250 000
<i>Current assets</i>	1 600 000	2 090 000
Inventory	000	000
Trade and other receivables	1 020 000	60 000
Cash and cash equivalents	160 000	1 100 000
Total Assets	6 600 000	7 430 000
Equity and Liabilities		
Capital and reserves	3 780 000	3 320 000
<i>Non-current liabilities</i>	1 000 000	800 000
<i>Current Liabilities</i>	1 820 000	3 310 000
Trade and other payables	1 745 000	2 260 000
Bank overdraft	75 000	1 050 000
Total equity and liabilities	6 600 000	7 430 000

Required:

- 4.1 Calculate the solvency ratios for Hercules for 2015 and 2016. **(4)**
- 4.2 Interpret the results of your ratios in 4.1 above. **(4)**
- 4.3 List two corrective measures the company can use. **(2)**
- 4.4 Caution should be used when using ratios. Name 3 things one should be aware of when using ratios. **(3)**
- 4.5 The use of debt in a company can be a concern for those that analyse financial statements. Why would one be concerned regarding debt? **(2)**

QUESTION 5 (10 MARKS)

BIG FIVE ADVENTURES is currently evaluating their working capital policy. Management want to improve the liquidity of the company over the short term by improving their cash conversion cycle.

The following information was extracted from the most recent financial statements:

Current assets

Inventory	R75 500
Accounts receivable	R82 000

Current liabilities

Accounts payable	R90 000
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Additional information:

Total sales for the year amounted to R900 000. Customers that paid cash received 10% discount on their purchases. Total cash sales for the year was R200 000.

The cost of sales amounted to R525 000 and credit purchases amounted to R544 500.

The balance on the inventory account at the beginning of the year was R95 000.

Average age of inventory (AAI)	= ? days
Average collection period (ACP)	= 42.79 days
Average payments period (APP)	= ? days

REQUIRED:

- 5.1 Explain what is meant by the term *cash conversion cycle*. **(1)**
- 5.2 Calculate the cash conversion cycle (CCC) for the company. **(5)**
- 5.3 Motivate if a company would prefer a short or long cash conversion cycle. **(1)**
- 5.4 Advise BIG FIVE ADVENTURES on how their cash conversion cycle can be improved. **(3)**

QUESTION 6 (20 MARKS)

Sunette (28) and Wayde (34) met at the Rio Olympics in 2016 and fell in love. At the Olympics Wayde won a gold medal and prizemoney of R3 000 000.

Soon after the Olympics when they returned to South Africa, they got married and had a baby. They just moved into their own home in Sandton, after obtaining a loan from SA Sport Bank.

REQUIRED:

6.1 With regards to their home loan, explain to Wayde and Sunette what is meant by the terms simple interest and compound interest. Will the interest paid to the bank on the home loan be compound or simple interest? **(3)**

6.2 Determine the future value of the prize money if Wayde invested the winnings for 10 years at SA Sport Bank at an annual compounded interest rate of 7.5%. **(4)**

Sunette is thinking of buying a new car since she has volunteered to train underprivileged athletes at a stadium that is far from home. She can purchase a car for cash for R350 000 or get a loan where she pays R80 000 per year for five (5) years at a rate of 11.5% compounded annually.

6.3 Advise Sunette if she should purchase the car cash or get a loan?**(6)**

The couple was blessed with a young baby boy named Tumelo and in order to ensure that Tumelo's athletic aspirations are fulfilled, Sunette and Wayde would like to have R 50 000 available when he finishes matric in 18 years to fund his professional athletics training.

6.4 Determine the amount that the couple must invest today to pay the R 50 000 to fund Tumelo's professional athletics training. They can earn 14% interest on investments. **(4)**

The couple's financial advisor also suggested that Wayde and Sunette invest some of their prize money to be able to withdraw an amount of R20 000 every year for the rest of their lives. They will be able to earn 8 % interest compounded annually on their investment.

6.5 Determine the amount that the couple must invest today. **(3)**

TOTAL: 100 MARKS

Formulae and Appendices / *Formules en Bylae*

Time Value of Money Formulae

$$FV_n = PV_0(1+i)^n$$

$$FV_n = PV_0 \times FVIF_{i,n}$$

$$PV_0 = FV_n(1+i)^{-n}$$

$$PV_0 = FV_n \times PVIF_{i,n}$$

$$FVA = PMT \left[\frac{(1+i)^n - 1}{i} \right]$$

$$FVA = PMT \times FVIFA_{i,n}$$

$$PVA = PMT \left[\frac{1 - (1+i)^{-n}}{i} \right]$$

$$PVA = PMT \times PVIFA_{i,n}$$

$$FVAD = PMT \left[\frac{(1+i)^n - 1}{i} \right] (1+i)$$

$$FVA = PMT \times FVIFA_{i,n} \times (1+i)$$

$$PVAD = PMT \left[\frac{1 - (1+i)^{-n}}{i} \right] (1+i)$$

$$PVAD = PMT \times PVIFA_{i,n} \times (1+i)$$